

IN THE CLAIMS:

Please amend the claims as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) An information processing apparatus for dividing print data ~~and having~~ amongst a plurality of printer drivers that generate a plurality of print jobs to make a plurality of printers execute a print process, comprising:

first spooling means for spooling device-independent-format data converted from data provided by an application, the spooled device-independent-format data being ~~converted~~ processed by a distributed printing printer driver that is independent of each of the plurality of printer drivers corresponding to the plurality of printers;

first assignment means for generating from the device-independent-format data spooled by said first spooling means, a plurality of pieces of divided print process data for distribution printing, the divided print process data being formed in a device-independent format;

output means for outputting the plurality of pieces of divided print process data generated by said first assignment means to respective corresponding printer drivers which generate device-dependent-format data; and

second spooling means for spooling one of said plurality of device-dependent-format data generated by a predetermined one of said plurality of printer drivers;

second assignment means for generating from the device-dependent-format data spooled by said second spooling means, a plurality of pieces of divided print data for distribution printing;

determination means for determining whether the plurality of printers for distribution printing can process a same printer language data;

control means for performing the spooling process by said first spooling means in a case where said determination means determines that the plurality of printers can not process the same printer language data, and for performing the spooling process by said second spooling means in a case where said determination means determines that the plurality of printers can process the same printer language data; and

output control means for outputting a plurality of pieces of print data[[,]] generated in [[a]] the device-dependent format to the plurality of printers from the ~~respective ones of the plurality of pieces of divided print data output by said output means, to the respective ones of the plurality of printers;~~

~~wherein said assignment means is able to assign the plurality of pieces of divided print data in the device-independent format to the printer drivers that generate different types of print data; and the plurality of print jobs are able to be described in respective different printer languages by the plurality of printer drivers.~~

2. (Original) An information processing apparatus according to claim 1, further comprising registering means for registering a plurality of output destination printers.

3. (Canceled)

4. (Currently Amended) An information processing apparatus according to claim 1, ~~further comprising judging means for judging~~ wherein said determination means

determines a combination of the plurality of printers and ~~judging~~ determines whether device-dependent data or device-independent data is spooled.

5. (Currently Amended) An information processing apparatus according to claim 4, wherein said ~~judging means judges~~ determination means whether all of the plurality of printers are printers using a printer language capable of dividing the print job in a page unit.

6. (Currently Amended) An information processing apparatus according to claim 4, wherein said ~~judging means judges~~ determination means whether all of the plurality of printers are printers of a same type.

7. (Currently Amended) An information processing apparatus according to claim 4, wherein said ~~judging means judges~~ determination means whether all of the plurality of printers have a same printer driver.

8. (Previously Presented) An information processing apparatus according to claim 4, wherein the device-dependent data is RAW data and device-independent data is EMF data.

9. (Original) An information processing apparatus according to claim 1, further comprising:

judging means for judging whether a page number of a page to be printed can be designated in the print job to be output from each printer; and

transfer control means for copying the print job as many as the number of printers for outputting the divided print jobs, adding a page number of a page to be printed to each of the copied print jobs, and transferring the copied print jobs to the printers, if said judging means judges that the page number can be designated, and if said judging means judges that the page number cannot be designated, dividing the print jobs for each page to be printed at the printers for distributed printing and transferring the divided print jobs to the printers.

10. (Original) An information processing apparatus according to claim 9, wherein said judging means judges from page designation print performance information of each printer whether the page number of a page to be printed can be designated in the print job to be output from each printer.

11. (Previously Presented) An information processing apparatus according to claim 2, further comprising:

re-arranging means for re-arranging a combination of a plurality of printers for outputting the divided print job, among the plurality of printers registered by said registering means, if a printer for outputting the divided print job cannot execute a print process; and

report forming means for forming a distributed printing result report in accordance with a distributed printing result obtained by the printers re-arranged by said re-arranging means,

wherein after the distributed printing by the rearranged printers, the distributed printing result report formed by said report forming means is output to one of the re-arranged printers.

12. (Original) An information processing apparatus according to claim 2, further comprising distributed data generating means for dividing the print job and making a printer driver corresponding to each printer generate print data to print the print data at the printers registered by said registering means, wherein said distributed data generating means controls each printer driver to generate the print data added with an offline command.

13. (Original) An information processing apparatus according to claim 12, wherein the printer driver corresponding to each of the printers registered by said registering means generates the print data.

14. (Original) An information processing apparatus according to claim 11, wherein if all the printers cannot execute the print process, this effect is output to a printer which outputs the distributed printing result when an error occurs.

15. (Canceled)

16. (Original) An information processing apparatus according to claim 12, wherein said registering means registers a printer to which the distributed printing result report is output.

17. (Original) An information processing apparatus according to claim 11, wherein the print data is generated by adding an off-line command to the print data for the distributed printing.

18. (Original) An information processing apparatus according to claim 11, further comprising:

judging means for judging whether each of the printers registered by said registering means outputs the print job normally,

wherein the distributed printing result report formed by said report forming means is output to a printer to which the report is output, if said judging means judges that the print job for each printer cannot output normally.

19. (Original) An information processing apparatus according to claim 11, further comprising:

detecting means for detecting a print job process error by monitoring a process state of the print job distributed to the printers by said output control means,

wherein said re-arranging means re-arranges a combination of a plurality of printers capable of normally outputting the print job distributed to the printers by said output control means, in accordance with a detection result of the print job process error by said detecting means.

20. (Currently Amended) An information processing method for dividing print data ~~and having~~ amongst a plurality of printer drivers that generate a plurality of print jobs to make a plurality of printers execute a print process, comprising:

a first spooling step of spooling device-independent-format data converted from data provided by an application, the spooled device-independent-format data being converted processed by a distributed printing printer driver that is independent of each of the plurality of printer drivers corresponding to the plurality of printers;

~~an~~ a first assignment step for generating from the device-independent-format data spooled by said first spooling step, a plurality of pieces of divided print process data for distribution printing, the divided print process data being formed in a device-independent-format;

an output step for outputting the plurality of pieces of divided print process data generated by said first assignment step to respective corresponding printer drivers which generate device-dependent-format data; and

a second spooling step for spooling device-dependent-format data generated by a predetermined one of said plurality of printer drivers;

a second assignment step for generating from the device-dependent-format data spooled by said second spooling step, a plurality of pieces of divided print data for distribution printing;

a determination step for determining whether the plurality of printers for distribution printing can process a same printer language data;

a control step for performing the spooling process by said first spooling step in a case where said determination step determines that the plurality of printers can not process the same printer language data, and for performing the spooling process by said second spooling step in a case where said determination step determines that the plurality of printers can process the same printer language data; and

an output control step of outputting a plurality of pieces of print data[[,]]  
generated in [[a]] the device-dependent format to the plurality of printers from the  
respective ones of the plurality of pieces of divided print data output by said output step, to  
the respective ones of the plurality of printers,  
~~wherein said assignment step is able to assign the plurality of pieces of~~  
~~divided print data in the device-independent format to the printer drivers that generate~~  
~~different types of print data, and the plurality of print jobs are able to be described in~~  
~~respective different printer languages by the plurality of printer drivers.~~

21. (Original) An information processing method according to claim 20,  
further comprising a registering step of registering a plurality of output destination printers.

22. (Canceled)

23. (Currently Amended) An information processing method according to  
claim 20, ~~further comprising a judging step of judging~~ wherein said determination step  
determines a combination of the plurality of printers and judging determines whether  
device-dependent data or device-independent data is spooled.

24. (Currently Amended) An information processing method according to  
claim 23, wherein said ~~judging step judges~~ determination step determines whether all of the  
plurality of printers are printers using a printer language capable of dividing the print job in  
a page unit.



25. (Currently Amended) An information processing method according to claim 23, wherein said judging step judges determination step determines whether all of the plurality of printers are printers of a same type.

26. (Currently Amended) An information processing method according to claim 23, wherein said judging step judges determination step determines whether all of the plurality of printers have a same printer driver.

27. (Previously Presented) An information processing method according to claim 23, wherein the device-dependent data is RAW data and device-independent data is EMF data.

28. (Original) An information processing method according to claim 20, further comprising:

a judging step of judging whether a page number of a page to be printed can be designated in the print job to be output from each printer; and

a transfer control step of copying the print job as many as the number of printers for outputting the divided print jobs, adding a page number of a page to be printed to each of the copied print jobs, and transferring the copied print jobs to the printers, if said judging step judges that the page number can be designated, and if said judging step judges that the page number cannot be designated, dividing the print jobs for each page to be printed at the printers for distributed printing and transferring the divided print jobs to the printers.

29. (Original) An information processing method according to claim 28, wherein said judging step judges from page designation print performance information of each printer whether the page number of a page to be printed can be designated in the print job to be output from each printer.

30. (Previously Presented) An information processing method according to claim 21, further comprising:

a re-arranging step of re-arranging a combination of a plurality of printers for outputting the divided print job, among the plurality of printers registered by said registering step, if a printer for outputting the divided print job cannot execute a print process; and

a report forming step of forming a distributed printing result report in accordance with a distributed printing result obtained by the printers re-arranged by said re-arranging step,

wherein after the distributed printing by the rearranged printers, the distributed printing result report formed by said report forming step is output to one of the re-arranged printers.

31. (Original) An information processing method according to claim 21, further comprising a distributed data generating step of dividing the print job and making a printer driver corresponding to each printer generate print data to print the print data at the printers registered by said registering step, wherein said distributed data generating step controls each printer driver to generate the print data added with an off-line command.

32. (Original) An information processing method according to claim 31, wherein the printer driver corresponding to each of the printers registered by said registering means generates the print data.

33. (Original) An information processing method according to claim 30, wherein if all the printers cannot execute the print process, this effect is output to a printer which outputs the distributed printing result when an error occurs.

34. (Canceled)

35. (Original) An information processing method according to claim 31, wherein said registering step registers a printer to which the distributed printing result report is output.

36. (Original) An information processing method according to claim 30, wherein the print data is generated by adding an off-line command to the print data for the distributed printing.

37. (Original) An information processing method according to claim 30, further comprising:

a judging step of judging whether each of the printers registered by said registering step outputs the print job normally,

wherein the distributed printing result report formed by said report forming step is output to a printer to which the report is output, if said judging step judges that the print job for each printer cannot output normally.

38. (Original) An information processing method according to claim 30, further comprising:

a detecting step of detecting a print job process error by monitoring a process state of the print job distributed to the printers by said output control step,

wherein said re-arranging step re-arranges a combination of a plurality of printers capable of normally outputting the print job distributed to the printers by said output control step, in accordance with a detection result of the print job process error by said detecting step.

39. (Currently Amended) A computer-readable memory medium which stores a computer-executable program for a method of dividing print data and having amongst a plurality of printer drivers that generate a plurality of print jobs to make a plurality of printers execute a print process, said program comprising:

a first spooling step of spooling device-independent-format data converted from data provided by an application, the spooled device-independent-format data being converted processed by a distributed printing printer driver that is independent of each of the plurality of printer drivers corresponding to the plurality of printers;

[[an]] a first assignment step for generating from the device-independent-format data spooled by said first spooling step, a plurality of pieces of divided print process

data for distribution printing, the divided print process data being formed in a device-independent format;

an output step for outputting the plurality of pieces of divided print process data generated by said assignment step to respective corresponding printer drivers which generate device-dependent-format data; and

a second spooling step for spooling device-dependent-format data generated by a predetermined one of said plurality printer drivers;

a second assignment step for generating from the device-dependent-format data spooled by said second spooling step, a plurality of pieces of divided print data for distribution printing;

a determination step for determining whether the plurality of printers for distribution printing can process a same printer language data;

a control step for performing the spooling process by said first spooling step in a case where said determination step determines that the plurality of printers can not process the same printer language data, and for performing the spooling process by said second spooling step in a case where said determination step determines that the plurality of printers can process the same printer language data; and

an output control step of outputting a plurality of pieces of print data generated in ~~[[a]]~~ the device-dependent format to the plurality of printers from the respective ones of the plurality of pieces of divided print data output by said output means, to the respective ones of the plurality of printers;

———— wherein said assignment step is able to assign the plurality of pieces of divided print data in the device-independent format to the printer drivers that generate

~~different types of print data, and the plurality of print jobs are able to be described in  
respective different printer languages by the plurality of printer drivers.~~

40. (Original) A computer-readable memory medium according to claim 39, wherein said program further comprises a registering step of registering a plurality of output destination printers.

41. (Canceled)

42. (Currently Amended) A computer-readable memory medium according to claim 39, wherein said program further comprises a ~~judging step of judging~~  
determination step determines a combination of the plurality of printers and ~~judging~~  
determines whether device-dependent data or device-independent data is spooled.

43. (Currently Amended) A computer-readable memory medium according to claim 42, wherein said ~~judging step judges~~ determination step determines whether all of the plurality of printers are printers using a printer language capable of dividing the print job in a page unit.

44. (Currently Amended) A computer-readable memory medium according to claim 42, wherein said ~~judging step judges~~ determination step determines whether all of the plurality of printers are printers of a same type.

45. (Currently Amended) A computer-readable memory medium according to claim 42, wherein said ~~judging step judges~~ determination step determines whether all of the plurality of printers have a same printer driver.

46. (Original) A computer-readable memory medium according to claim 42, wherein the device-dependent data is RAW data and device-independent data is EMF data.

47. (Original) A computer-readable memory medium according to claim 39, wherein said program further comprises:

a judging step of judging whether a page number of a page to be printed can be designated in the print job to be output from each printer; and

a transfer control step of copying the print job as many as the number of printers for outputting the divided print jobs, adding a page number of a page to be printed to each of the copied print jobs, and transferring the copied print jobs to the printers, if said judging step judges that the page number can be designated, and if said judging step judges that the page number cannot be designated, dividing the print jobs for each page to be printed at the printers for distributed printing and transferring the divided print jobs to the printers.

48. (Original) A computer-readable memory medium according to claim 47, wherein said judging step judges from page designation print performance information of each printer whether the page number of a page to be printed can be designated in the print job to be output from each printer.

49. (Previously Presented) A computer-readable memory medium according to claim 40, wherein said program further comprises:

a re-arranging step of re-arranging a combination of a plurality of printers for outputting the divided print job, among the plurality of printers registered by said registering step, if a printer for outputting the divided print job cannot execute a print process; and

a report forming step of forming a distributed printing result report in accordance with a distributed printing result obtained by the printers re-arranged by said re-arranging step,

wherein after the distributed printing by the re-arranged printers, the distributed printing result report formed by said report forming step is output to one of the re-arranged printers.

50. (Original) A computer-readable memory medium according to claim 40, wherein said program further comprises a distributed data generating step of dividing the print job and making a printer driver corresponding to each printer generate print data to print the print data at the printers registered by said registering step, wherein said distributed data generating step controls each printer driver to generate the print data added with an off-line command.

51. (Original) A computer-readable memory medium according to claim 50, wherein the printer driver corresponding to each of the printers registered by said registering step generates the print data.



52. (Original) A computer-readable memory medium according to claim 49, wherein if all the printers cannot execute the print process, this effect is output to a printer which outputs the distributed printing result when an error occurs.

53. (Canceled)

54. (Original) A computer-readable memory medium according to claim 50, wherein said registering step registers a printer to which the distributed printing result report is output.

55. (Original) A computer-readable memory medium according to claim 49, wherein the print data is generated by adding an off-line command to the print data for the distributed printing.

56. (Original) A computer-readable memory medium according to claim 49, wherein said program further comprises:

a judging step of judging whether each of the printers registered by said registering step outputs the print job normally,  
wherein the distributed printing result report formed by said report forming step is output to a printer to which the report is output, if said judging step judges that the print job for each printer cannot output normally.

57. (Original) A computer-readable memory medium according to claim 49, wherein said program further comprises:

a detecting step of detecting a print job process error by monitoring a process state of the print job distributed to the printers by said output control step,

wherein said re-arranging step re-arranges a combination of a plurality of printers capable of normally outputting the print job distributed to the printers by said output control step, in accordance with a detection result of the print job process error by said detecting step.

58. (Currently Amended) A computer-executable program stored on a computer-readable storage medium, said program for implementing for a method of dividing print data and having amongst a plurality of printer drivers that generate a plurality of print jobs to make a plurality of printers execute a print process, said program comprising:

a first spooling step of spooling device-independent-format data converted from data provided by an application, the spooled device-independent-format data being converted processed by a distributed printing printer driver that is independent of each of the plurality of printer drivers corresponding to the plurality of printers;

a first assignment step for generating from the device-independent-format data spooled by said first spooling step, a plurality of pieces of divided print process data for distribution printing, the divided print process data being formed in a device-independent format;

an output step for outputting the plurality of pieces of divided print process data generated by said assignment step to respective corresponding printer drivers which generate device-dependent-forma data; and

a second spooling step for spooling device-dependent-format data generated by a predetermined one of said plurality of printer drivers;

a second assignment step for generating from the device-dependent-format data spooled by said second spooling step, a plurality of pieces of divided print data for distribution printing;

a determination step for determining whether the plurality of printers for distribution printing can process a same printer language data;

a control step for performing the spooling process by said first spooling step in a case where said determination step determines that the plurality of printers can not process the same printer language data, and for performing the spooling process by said second spooling step in a case where said determination step determines that the plurality of printers can process the same printer language data; and

an output control step of outputting a plurality of pieces of print data[[,]] generated in [[a]] the device-dependent format to the plurality of printers from the respective ones of the plurality of pieces of divided print data output by said output means, to the respective ones of the plurality of printers;

wherein said assignment step is able to assign the plurality of pieces of divided print data in the device-independent format to the printer drivers that generate different types of print data, and the plurality of print jobs are able to be described in respective different printer languages by the plurality of printer drivers.

59. (Original) A computer program according to claim 58, wherein said program further comprises a registering step of for registering a plurality of output destination printers.

60. (Canceled)

61. (Currently Amended) A computer program according to claim 58, wherein said ~~program further comprises a judging step of judging~~ determination step determines a combination of the plurality of printers and ~~judging~~ determines whether device-dependent data or device-independent data is spooled.

62. (Currently Amended) A computer program according to claim 61, wherein said ~~judging step judges~~ determination step determines whether all of the plurality of printers are printers using a printer language capable of dividing the print job in a page unit.

63. (Currently Amended) A computer program according to claim 61, wherein said ~~judging step judges~~ determination step determines whether all of the plurality of printers are printers of a same type.

64. (Currently Amended) A computer program according to claim 61, wherein said ~~judging step judges~~ determination step determines whether all of the plurality of printers have a same printer driver.

65. (Original) A computer program according to claim 61, wherein the device-dependent data is RAW data and device-independent data is EMF data.

66. (Original) A computer program according to claim 58, wherein said program further comprises:

a judging step of judging whether a page number of a page to be printed can be designated in the print job to be output from each printer; and

a transfer control step of copying the print job as many as the number of printers for outputting the divided print jobs, adding a page number of a page to be printed to each of the copied print jobs, and transferring the copied print jobs to the printers, if said judging step judges that the page number can be designated, and if said judging step judges that the page number cannot be designated, dividing the print jobs for each page to be printed at the printers for distributed printing and transferring the divided print jobs to the printers.

67. (Original) A computer program according to claim 66, wherein said judging step judges from page designation print performance information of each printer whether the page number of a page to be printed can be designated in the print job to be output from each printer.

68. (Previously Presented) A computer program according to claim 59, wherein said program further comprises:

a re-arranging step of re-arranging a combination of a plurality of printers for outputting the divided print job, among the plurality of printers registered by said registering step, if a printer for outputting the divided print job cannot execute a print process; and

a report forming step of forming a distributed printing result report in accordance with a distributed printing result obtained by the printers re-arranged by said re-arranging step,

wherein after the distributed printing by the rearranged printers, the distributed printing result report formed by said report forming step is output to one of the re-arranged printers.

69. (Original) A computer program according to claim 59, wherein said program further comprises a distributed data generating step of dividing the print job and making a printer driver corresponding to each printer generate print data to print the print data at the printers registered by said registering step, wherein said distributed data generating step controls each printer driver to generate the print data added with an off-line command.

70. (Original) A computer program according to claim 69, wherein the printer driver corresponding to each of the printers registered by said registering step generates the print data.

71. (Original) A computer program according to claim 68, wherein if all the printers cannot execute the print process, this effect is output to a printer which outputs the distributed printing result when an error occurs.

72. (Canceled)

73. (Original) A computer program according to claim 69, wherein said registering step registers a printer to which the distributed printing result report is output

74. (Original) A computer program according to claim 68, wherein the print data is generated by adding an offline command to the print data for the distributed printing.

75. (Original) A computer program according to claim 68, wherein said program further comprises:

a judging step of judging whether each of the printers registered by said registering step outputs the print job normally,

wherein the distributed printing result report formed by said report forming step is output to a printer to which the report is output, if said judging step judges that the print job for each printer cannot output normally.

76. (Original) A computer program according to claim 68, wherein said program further comprises:

a detecting step of detecting a print job process error by monitoring a process state of the print job distributed to the printers by said output control step,

wherein said re-arranging step re-arranges a combination of a plurality of printers capable of normally outputting the print job distributed to the printers by said output control step, in accordance with a detection result of the print job process error by said detecting step.